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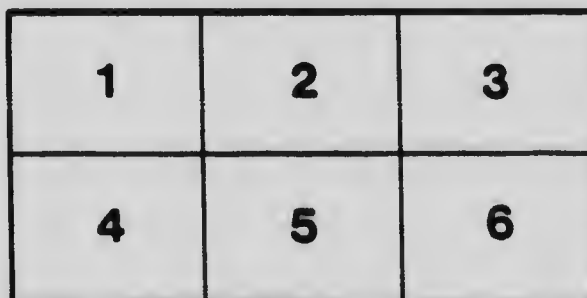
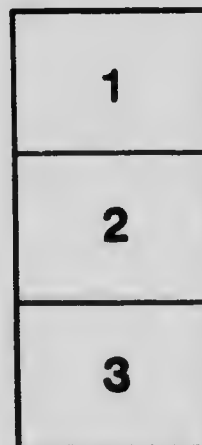
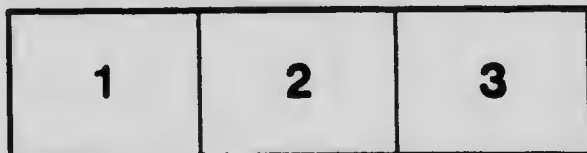
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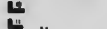
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CONGRÈS GÉOLOGIQUE INTERNATIONAL

Daily
Programm



TORONTO, CANADA

August 7th to 14th, 1913

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Congrès Géologique International

THURSDAY, AUGUST 7TH, 1913.

9.00 a.m. Meeting of Council for organization and appointment of Bureau. Room 16, Building No. 23.

The Congress is governed by a Council constituted as follows:

Members of the Comité fondateur.

Members of the Organization Committee of the Session of the Congress being held.

Presidents in office of Geological Societies.

Directors of important Geological Surveys.

Members of the "Bureau" (Vice-Presidents or other office holders elected by the members at their first meeting)

Members of the Congress whom the Council may add to its number.

10.00 a.m. Reunion of International Committees.

11.30 a.m. Assemble in Convocation Hall for the official Opening of the Congress at noon. Building No. 30.

The chair will be taken by His Excellency the Right Hon. Sir Charles Fitzpatrick, Chief Justice of the Supreme Court of Canada, P.C., G.C.M.G., Administrator during the absence of Field Marshall His Royal

Highness the Duke of Connaught and Strathearn, K.G., K.T., K.P., G.M.B., G.C.S.I., G.C.M.G., G.C.I.E., G.C.V.O., P.C., Governor-General of Canada.

An address by the Chairman.

Welcome on behalf of the Province of Ontario by the Hon. W. H. Hearst, Minister of Lands, Forests and Mines of Ontario.

Welcome on behalf of the City of Toronto, by Acting Mayor Church.

Welcome on behalf of the University of Toronto by President R. A. Falconer, LL.D.

Address by E. Tietze, ancien President.

Dr. Helges Bäckström, delegate of the Royal Swedish Government, representing the Eleventh International Geological Congress, will transmit the affairs of Congress to this Session.

On behalf of the General Secretary of the Eleventh Congress, the Secretary of the Executive Committee will read the "Bureau" as nominated by Council.

The Chairman will submit the nominations to the meeting for approval and selection.

The newly elected President will take the Chair.

The General Secretary will outline the preparations made by the Executive Committee for the Congress.

3.00 p.m. General Meeting. Topic No. 1, "Coal Resources of the World," Convocation Hall, Building No. 30.

8 30 p.m. M. Emmanuel de Margerie, ancien Président de la Société Géologique de France, will deliver a Popular Lecture on "The Geological Map of the World," Convocation Hall, Building No. 30.

4 to 6 p.m. Tea will be served by the Ladies Local Committee in the Quadrangle if fine, if raining, in Room 16.

FRIDAY, AUGUST 8TH, 1913.

9.00 a.m. Meeting of Council.

9.30 a.m. Commission du Prix Speniardoff. Room 67, Building 23.

Commission pour creation d'une revue internationale de géologie. Room 19, Building 23.

Commission de la Palaeontologie Universalis. Room 65, Building 23.

Commission pour l'étude de l'homme fossile. Room 13, Building 23.

Commission sur la publication d'une lexique de stratigraphie. Room 27, Building 23.

Commission internationale des glaciers. Room 59. Building 23.

PAPERS

10.00 a.m. GENERAL MEETING. Building 35.

1. Über das Alter, die Verbreitung und die gegenseitigen Beziehungen der verschiedenen tektonischen Strukturen in den Argentinischen Gebirgen, by H. Keidel, Buenos Aires, Argentine.

2. Earth movements in the Malay Archipelago, by G. A. F. Molengraaf, Delft, Holland.
3. La géologie du Maroc, by L. E. Gentil, Paris, France.
4. Petroleum on Bondoc peninsula, Tayabas province, Philippines, by W. E. Pratt, Manila, P.I.
5. On the Old Red Sandstone series of northwestern Spitzbergen, by Olaf Holtedahl, Christiania, Norway.
6. The forty-first parallel survey, Argentina, by Bailey Willis.

1.15 p.m. Ladies' Luncheon. West Wing, Parliament Buildings, Building 28.

SECTION 1. Building 23, Room 8.
TOPIC No. 2, DIFFERENTIATION.

- 2.30 p.m.
- 1 Sills and laccoliths illustrating petrogenesis, by R. A. Daly, Cambridge, U.S.A.
 2. Fractional crystallization, the prime factor in the differentiation of rock magmas, by Alfred Harker, Cambridge, England.
 3. Some examples of magmatic differentiation and their bearing on the problem of petrographical provinces, by Jos. P. Iddings, Washington, U.S.A.
 4. The volcanic cycles in Sardinia, by Henry S. Washington, Washington, U.S.A.
 5. Variations in composition of pelitic sediments in relation to magmatic differentiation, by Wm. H. Hobbs, Ann Arbor, U.S.A.

6. A classification of the eruptive rocks of Italy, by Venturino Sabatini, Rome, Italy.

SECTION 3. Building 23, Room 11.
TOPIC No. 6, INTERGLACIAL PERIODS.

- 2.30 p.m.
1. The Interglacial problem in the British Islands, by G. W. Lamplugh, St. Albans, Eng.
 2. An estimate of Postglacial and Interglacial time in North America, by A. P. Coleman, Toronto, Canada.
 3. Le commencement et la fin de la période glaciaire, by N. O. Holst, Jemshögsby, Sweden.
 4. The Sangamon interglacial stage in Minnesota and westward, by Warren Upham, St. Paul, U.S.A.
 5. Glazial und Interglazial in Norddeutschland, by W. Wolff, Berlin, Germany.
 6. Early Pleistocene glaciation in the Rocky Mountains of Glacier National Park, Montana, by Wm. C. Alden.

All Day. Excursion B3. Hamilton and Grimsby. Motor bus leaves front entrance, Main building (No. 23) at 7.30 a.m. sharp. Train leaves Track No. 3 Union Station, 8 a.m.

- 5.00 p.m. Excursion B10. Madoc. Leaves Union Station per C.P.R. at 5 p.m.

SATURDAY, AUGUST 9TH.

9.00 a.m. Meeting of Council, Building No. 23, Room 16.

9.30 a.m. Reunion of the Commission du degré géothermique, Room 59.

10.00 a.m. **GENERAL MEETING**, Building No. 35. Topic No. 7, "The physical and faunal characteristics of the Palæozoic seas with reference to the value of the recurrence of seas in establishing geological systems."

1. The shelf-seas of the Palæozoic and their relations to diastrophism and geological systems, by T. C. Chamberlin, Chicago, U.S.A.
2. Die paläozoischen Meere in Süd Amerika, by Gustav Steinmann, Bonn, Germany.
3. The delimitation of the geologic periods, illustrated by the paleogeography of North America, by Charles Schuchert, New Haven, U.S.A.
4. The Palæozoics of the Bagdad railway, by F. Frech, Germany.
5. On the Old Red Sandstone series of northwestern Spitzbergen, by Olaf Høltedahl, Christiania, Norway.
6. The Ordovician-Silurian boundary, by E. O. Ulrich, Washington, U.S.A.
7. Periodicity of Palæozoic orogenic movements, by T. C. Chamberlin and R. T. Chamberlin, Chicago, U.S.A.

10.45 a.m. **SPECIAL SECTIONAL MEETING**, Building No. 23, Room 8, on tectonics.

1. The problems of tectonic experiments, by W. Paulcke, Karlsruhe, Germany.
2. The relations of seismic disturbances in the Philippines to geologic structure, by M. S. Maso and Warren D. Smith, Manila, P.I.
3. The angle of shear, by Th. Dahlblom, Falun, Sweden.
4. Excavation deformations, by D. McDonald, Panama.
5. (Title to be announced), by E. O. Hovey, New York, U.S.A.
6. Landslides and the sinking of ground above mines, by Ernest Howe, Newport, U.S.A.

2.00 p.m. Reunion of the Commission de la Carte géologique d'Europe et du Monde, Building No. 23, Room 57.

2.30 p.m. MEETING OF SECTION 1, Building No. 23, Room 8, Miscellaneous papers—Economical and Chemical.

1. Ergebnisse der geologischen Untersuchungen über die Phosphoritlagerstätten Russlands, by J. Samojloff, Moscow, Russia.
2. The occurrence of petroleum and natural gas in the Mid-continent field, by Chas. N. Gould, Oklahoma City, U.S.A.
3. Natural gas in Transylvania, by Jules de Szadeczky, Kolosvar, Hungary.
4. L'emer de Naxos, by S. A. Papavasiliou, Athens, Greece.
5. The geological occurrences of precious stones on the American continent, by Geo. F. Kunz.

6. Über die Plastizität des Steinsalzes und ihre Abhängigkeit von der Temperatur, by L. Milch, Germany.
7. On a new area of nepheline rocks, by P. Quensel, Upsala, Sweden.
8. Studies on the etched figures of Japanese quartz, by Shimmatsu Ichikawa, Fukui-ken, Japan.
9. A physico-chemical contribution to the study of dolomitization, by R. C. Wallace, Winnipeg, Canada.
10. Some notes on rock analysis, by M. F. Connor, Ottawa, Canada.

2.30 p.m. MEETING OF SECTION 2, Building No. 23, Room 37, Topic No. 7 continued.

4.00 p.m. Garden Party. Mrs. and Mrs. D. A. Dunlap, 93 Highlands Ave., Rosedale.

8.30 p.m. Lecture illustrated with motion pictures and lantern slides on Western Canada, along the line of Grand Trunk Pacific Railway (C2 Excursion), by Cy. Warman, Building 23, Room 8.

EXCURSIONS.

9.30 a.m. Excursion B5, Moraines north of Toronto. Electric car at 9.30 a.m., Terminal of Metropolitan Railway, Yonge Street, North Toronto.

11.50 p.m. Excursion B6, Muskoka. Leaves Union Station by Grand Trunk Railway.

MONDAY, AUGUST 11TH.

9.00 a.m. Meeting of Council. Building 23.
Room 16.

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9.30 a.m. Building 23, Room 33. Reunion of the
Commission relative à une enquête
économique sur les gisements de fer
du monde.

10.00 a.m. General Meeting. Building No. 35.
Proposals and Reports of Interna-
tional Committees.

12.30 p.m. Group photograph in front of Building
23.

2.30 p.m. SECTION 1, Building No. 23, Room 8.
Topic No. 3, Influence of depth on
the character of metalliferous de-
posits.

1. The influence of depth on the character of metalliferous deposits, by J. F. Kemp, New York, U.S.A.
2. Primäre und sekundäre Erze unter besonderer Berücksichtigung der "Gel" und der Schwermetallreichen Erze, by Paul Krusch, Berlin, Germany.
3. The mineral composition of primary ore as a factor determining the vertical range of metals deposited by secondary processes, by W. H. Emons, Minneapolis, U.S.A.
4. On the formation in depth of oxidized ores and of secondary limestones, by L. L. Fermor, Calcutta, India.

5. A contribution to the metallogeny of the Philippine Islands, by Paul F. Fanning, Manilla, P.I.
6. The persistence of ore in depth, by Malcolm Maclaren, London, England.

2.30 p.m. SECTION 2. Building No. 37, Room 23.

MISCELLANEOUS PAPERS

- 1 Étude du stipe de l'*Asteropteris noveboracensis*, Dawson, by Paul Bertrand, Amiens, France.
2. La faune continentale du terrain houiller du Nord de la France; son utilisation stratigraphique, by Pierre Pruvost, Lille, France.
3. Conditions of deposition of the Witwatersrand conglomerate, by E. T. Mellor, Pretoria.
4. (Subject to be announced), by Carlos I. Lisson, Lima, Peru.
5. (Subject to be announced), by A. E. Day, Beirût, Syria.
6. Certain features of eolic gradation, by Chas. R. Keyes, Des Moines, U.S.A.
7. Geological cartography, by J. B. T. Ives, Andover, U.S.A.

8.30 p.m. Civic Reception at the City Hall.

EXCURSIONS.

- 8.00 a.m. Excursion B9, Orillia. Leaves Union Station by Grand Trunk Railway.
- 10.30 p.m. Excursion B11, Belmont Lake. Leaves Union Station by Canadian Pacific Railway.

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TUESDAY, AUGUST 12TH.

EXCURSIONS ALL DAY.

- 7.20 a.m. Excursion B4, Credit River. Leaves Union Station by Canadian Pacific Railway.
- 7.30 a.m. Excursion B1, Niagara Falls. Leaves Yonge Street wharf by Niagara Navigation Company's steamer.
- 9.00 a.m. Excursion B1, Niagara Falls. Leaves Yonge Street wharf, by Niagara Navigation Company's steamer.
- 9.00 a.m. Excursion B2, Don Valley. Leaves corner of College and McCaul Streets (in front of Building No. 43) by street car.
- 2.30 a.m. Excursion B2, Scarboro Heights. Leaves corner of College and McCaul Streets (in front of Building 43), by street car to steamer wharf.

WEDNESDAY, AUGUST 13TH.

- 9.00 a.m. Meeting of Council, Building No. 23, Room 16.
- 10.00 a.m. General Meeting, Building No. 35. Miscellaneous and Topic No. 4. Papers, if any, left over from General Meeting of Friday morning, August 8th.

Topic No. 4, "The Origin and extent of the Pre-Cambrian sedimentaries."

1. Different types of Pre-Cambrian unconformities, by J. J. Sederholm, Helsingfors, Finland.
2. Illustrations of the formation of composite gneisses and amphibolites in Northwest Ireland, by Grenville A. J. Cole, Dublin, Ireland.
3. (Title to be announced), by John Horne, Midlothian, Scotland.
4. On regional granitization (or anatexis), by J. J. Sederholm, Helsingfors, Finland.
5. The Pre-Cambrian sedimentary rocks in the Highlands of New Jersey, by W. S. Bayley, Urbana, U.S.A.
6. Cambrian and Pre-Cambrian in the Maritime Provinces of Canada, by G. F. Matthew, St. John, Canada.

2.30 p.m. General Meeting, Building No. 35.
Topic No. 5, "The Subdivisions, Correlations and Terminology of the Pre-Cambrian."

1. The subdivisions and correlation of the Pre-Cambrian rocks of the British Isles, by A. Strahan, London, England.
2. A standard scale for the Pre-Cambrian rocks of North America, by Andrew C. Lawson, Berkeley, U.S.A.
3. Some proposals concerning the terminology of the Pre-Cambrian, by J. J. Sederholm, Helsingfors, Finland.
4. (Title to be announced), by Sir T. H. Holland, Manchester, England.

5. Note on the nomenclature and classification of the Pre-Cambrian systems of India, by E. Vredenburg, Calcutta, India.
6. The Sudbury series and its bearing on Pre-Cambrian classification, by A. P. Coleman, Toronto, Canada.
7. A classification of the Pre-Cambrian formations in the region east of Lake Superior, by W. H. Collins, Ottawa, Canada.
- 8.30 p.m. Banquet at the Armories, University Ave.

EXCURSIONS.

- 8.00 a.m. Excursion B7, Streetsville. Leave Union Station by Canadian Pacific Railway.
- 2.00 p.m. Excursion B8. Clay deposits near Toronto. Leave Building No. 23 at 2 p.m.

THURSDAY, AUGUST 14TH.

- 9.00 a.m. Meeting of Council. Building No. 23, Room 16.
- 10.00 a.m. General Meeting. Building No. 35. Miscellaneous business and close of the Twelfth Session.
- 4.00 p.m. Special Convocation of the University of Toronto.
- 4.30 p.m. Garden Party. Building No. 23, Quadrangle.
Excursions C1, C2 and C6 leave Union Station by Canadian Pacific Railway.

